NEW HAMPSHIRE

October 20 2010
New England Association of
Pipeline Safety Representatives
Olgonquit, ME

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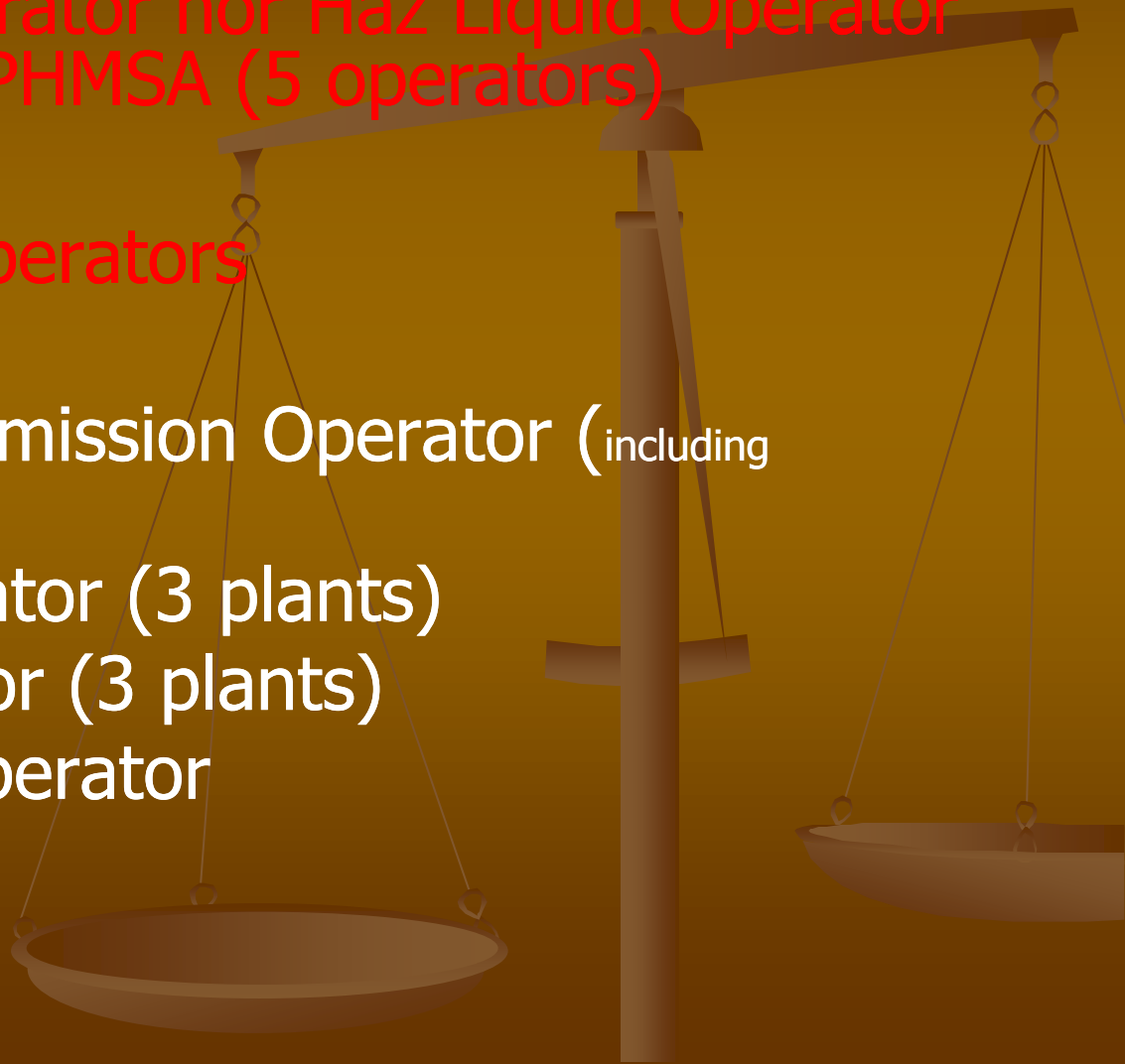
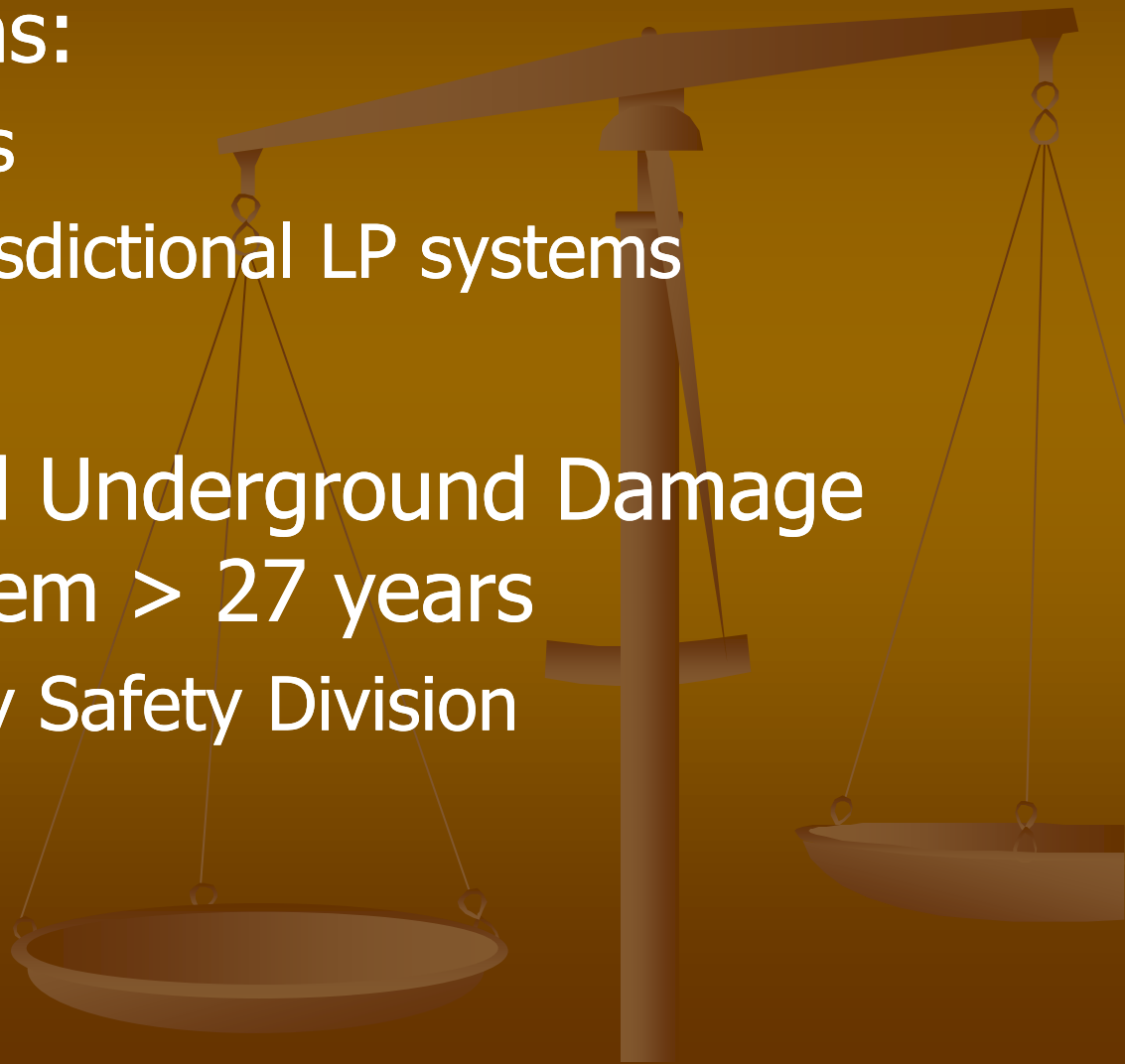
Key New Hampshire Stats

- No Interstate Operator nor Haz Liquid Operator Certification with PHMSA (5 operators)
- 0 gathering lines
- 0 municipal gas operators
- 3 gas LDCs
- 3 Intrastate Transmission Operator (including Landfill)
- 1 LNG Plant Operator (3 plants)
- 1 LP Plant Operator (3 plants)
- 4 Master Meter Operator



Key New Hampshire Stats

- Propane Systems:
  - 45 LP Operators
  - Approx 800 jurisdictional LP systems
- 2 inspectors
- Well Established Underground Damage Prevention System > 27 years
  - Administered by Safety Division



Merger & Acquisition Activity

#1

- National Grid
- Looking to "explore options in New Hampshire
- Gas & Electric Divisions

#2

- Parent Company of NH Gas (Berkshire Gas Company)
- Ibedrola USA sold to UIL Holdings Corp.

Compliance Updates

- Safety Related Conditions in 2009/2010

0

- Number of Incidents in 2009/2010 (Fed Definition)

0

Compliance Updates

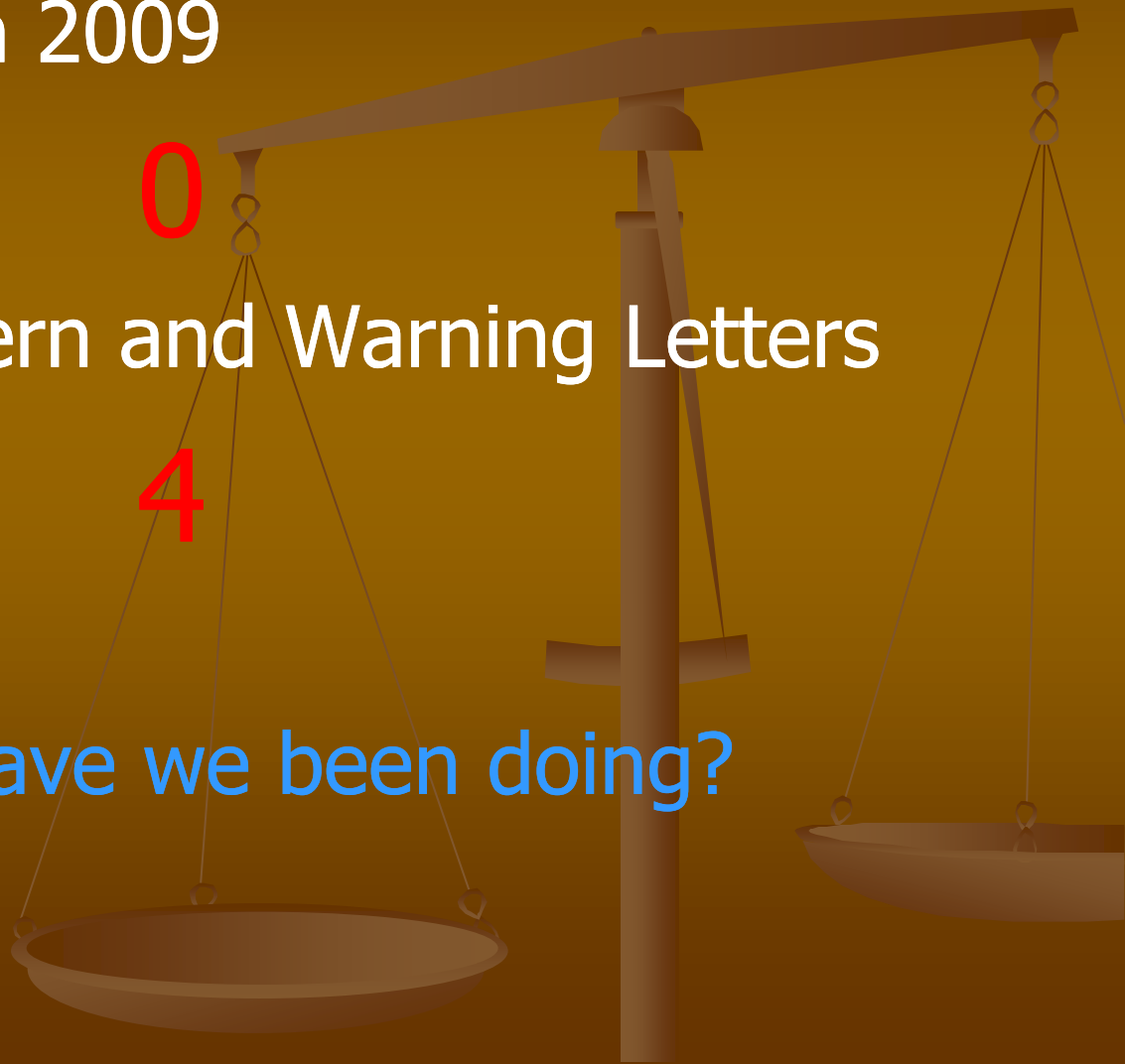
- NOPVs issued in 2009

0

- Letters of Concern and Warning Letters

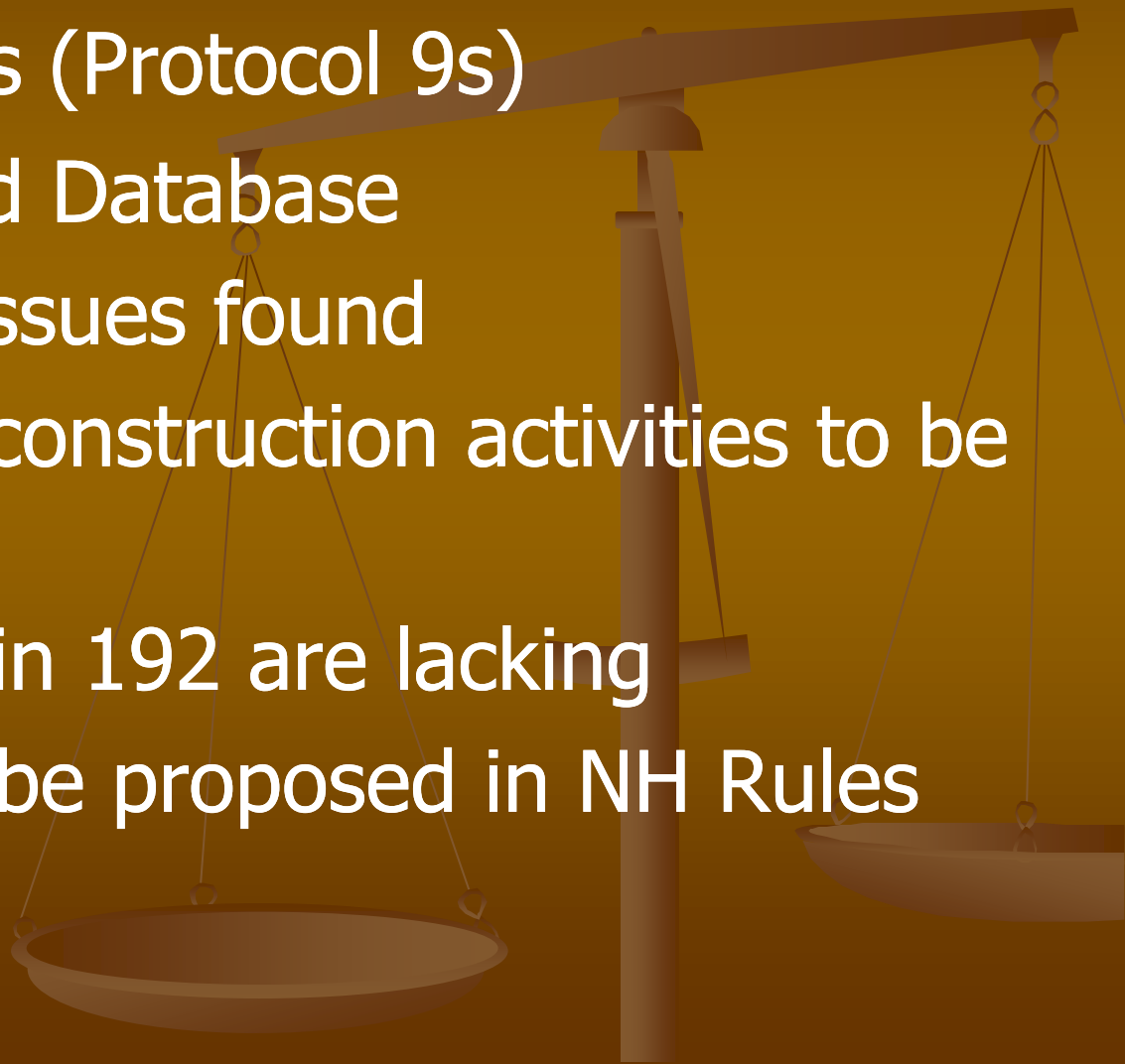
4

So what have we been doing?



Compliance Updates

- OQ Inspections (Protocol 9s)
- Entered into Fed Database
- No substantial issues found
- NH requires all construction activities to be OQ compliant
- OQ regulations in 192 are lacking
- Stricter OQ will be proposed in NH Rules



Compliance Updates

- IMP inspections have all been completed (3 intrastate operators and 3 plans reviewed)
- Entered into Fed Database
- No substantial issues found
- Witnessed MFL pigging operation in the field
- Requires follow up of data interpretation in 2010
- Provided guidance for plastic transmission pipeline

Compliance Updates

- First Interstate Compressor Station built in NH in 2009
- Safety Division represented on NH Site Evaluation Committee's 9 month public review process which requires approval before certificate is granted. Conditions stricter than Federal Standards can be applied.
- NH received temporary inspection authority for the construction and installation of the Station
- On going Maintenance and Operations reside with PHMSA.


07/27/2009

B. Utility piping, including air, water, and steam piping, within a compressing station shall be constructed in accordance with American National Standard Code for Pressure Piping, Power Piping, ANSI B31.1, and all applicable sections of the MES.

C. Air receivers or air storage bottles, for use in compressor stations, shall be constructed and equipped in accordance with Section VIII, Unfired Pressure Vessels, of the ASME Boiler and Pressure Vessel Code and all applicable sections of the MES.

Liquid Removal

1. Where entrained vapors in gas may liquefy under the anticipated pressure and temperature conditions, the compressor must be protected against the introduction of those liquids in quantities that could cause damage.
2. Each liquid separator used to remove entrained liquids at a compressor station must meet the following:
   - Have a manually operable means of removing these liquids.
   - Where slugs of liquid could be carried into the compressors, have either automatic liquid removal facilities, an automatic compressor shutdown device, or a high liquid level alarm; and
   - Be manufactured in accordance with Section VIII of the ASME Boiler and Pressure Vessel Code, except that liquid separators constructed of pipe and fittings without internal welding must be fabricated with a design factor of 0.4, or less.

Emergency Shutdown

1. Except for unattended field compressor stations of 1,000 horsepower or less, each compressor station must have an emergency shutdown system that meets the following:
   a. It must be able to block gas out of the station and blow down the station piping.
   b. It must discharge gas from the blowdown piping at a location where the gas will not create a hazard.
   c. It must provide means for the shutdown of gas compressing equipment, gas fires, and electrical facilities in the vicinity of gas headers and in the compressor building, except for the following:
      i. Electrical circuits that supply emergency lighting required to assist station personnel in evacuating the compressor building and the area in the vicinity of the gas headers must remain energized; and
      ii. Electrical circuits needed to protect equipment from damage may remain energized.

   d. It must be operable from at least two locations, each of which shall be:
      i. Outside the gas area of the station;
      ii. Near the exit gates, if the station is fenced, or near emergency exits, if not fenced; and
      iii. Not more than 500 feet from the limits of the station.
2. If a compressor station supplies gas directly to a distribution system with no other adequate source of gas available, the emergency shutdown system must be designed so that it will not function at the wrong time and cause an unintended outage on the distribution system.
3. On a platform located offshore or in inland navigable waters, the emergency shutdown system must be designed and installed to actuate automatically by each of the following events:
   a. In the case of an unattended compressor station:
      i. When the gas pressure equals the maximum allowable operating pressure (MAOP) plus 15 percent; or
      ii. When an uncontrolled fire occurs on the platform; and
   b. In the case of a compressor station in a building:
      i. When an uncontrolled fire occurs in the building; or
      ii. When the concentration of gas in air reaches 50 percent or more of the lower explosive limit in a building which has a source of ignition. [An electrical facility which conforms to Class 1, Group D of the National Electrical Code is not a source of ignition.]

Pressure Limiting Devices

Each compressor station must have pressure relief or other suitable protective devices of sufficient capacity and sensitivity to ensure that the maximum allowable operating pressure of the station piping and equipment is not exceeded. Each vent line that exhausts gas from the pressure relief valves of a compressor station must extend to a location where the gas may be discharged without hazard.

Additional Safety Equipment

1. Each compressor station must have adequate fire protection facilities. If fire pumps are a part of these facilities, their operation may not be affected by the emergency shutdown system.

NH Plastic Waiver Update

- Northeast Gas Association petitioned NHPUC for special permit regarding 2 year requirement for polyethylene for outdoor storage and use in July 2009
- NH PUC rejected waiver because it was filed incorrectly and not in accordance with rules August 2009
- Confirmed that Northeast Gas Association is no longer pursuing this waiver request.

NH Dig Safe Rules Update

After multiple refinements finalized in 2008 no substantive rule changes have been contemplated

Review of cases are not pointing to any one particular problem that needs addressing.

Continued increased education on excavator reporting is required

5 State New England One Call Center continues minimal promotion of 811

Cast Iron Bare Steel Accelerated Replacement Program

1913

2008-2010 Accelerated Cast Iron Bare Steel Replacement Program

National Grid

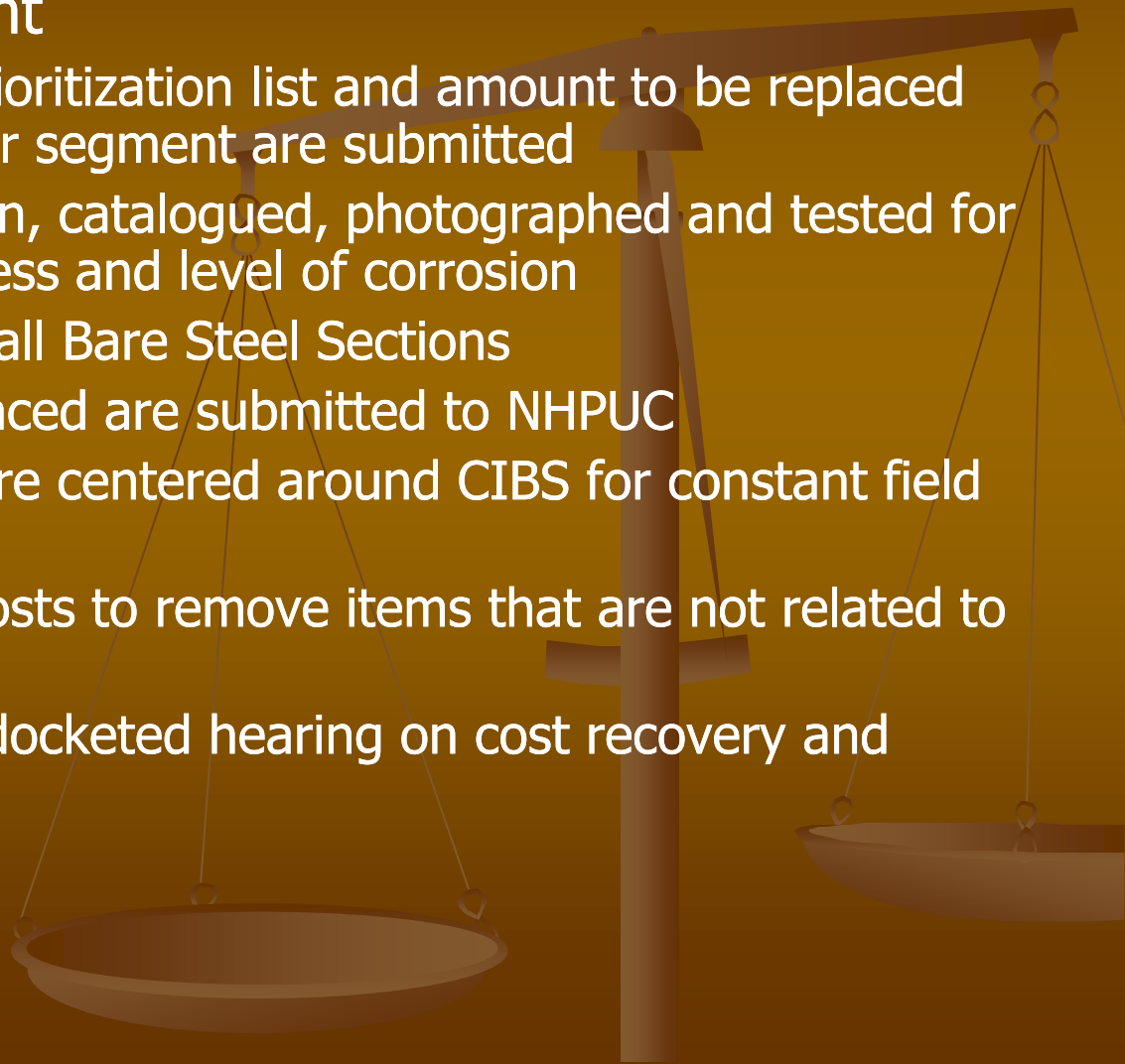
- Applies to internally driven projects not externally driven
- 3rd year of program
- $300 k/yr to $5 million/yr
- Customized program specific to NH
- Approximately 4 miles per year are removed internally driven and 4 miles per year externally driven
- Extensive review of all aspects of program by regulators

2008-2010 Accelerated Cast Iron Bare Steel Replacement Program

- Starting point 135 miles CI, 17 miles BS in NH
- Impact to residential rate payer $12/yr ($2.5, $5, $4)
- 2008 Replaced 7 miles, 3.5 miles internally driven
- 2009 Replaced 8 miles, 4 miles internally driven
- 2010 projected to replace 4 miles internally driven and 1 mile externally driven
- Bare Steel Services are replaced at rate of approximately 200 per year.

2008-2010 Accelerated Cast Iron Bare Steel Replacement Program

- Regulator Involvement
  - Annual approval of prioritization list and amount to be replaced and line item costs per segment are submitted
  - Each bare steel section, catalogued, photographed and tested for remaining wall thickness and level of corrosion
  - Report Generated on all Bare Steel Sections
  - Cut outs of Pipe Replaced are submitted to NHPUC
  - Inspection priorities are centered around CIBS for constant field monitoring.
  - Extensive review of costs to remove items that are not related to defined parameters
  - Testimony at annual docketed hearing on cost recovery and program impact

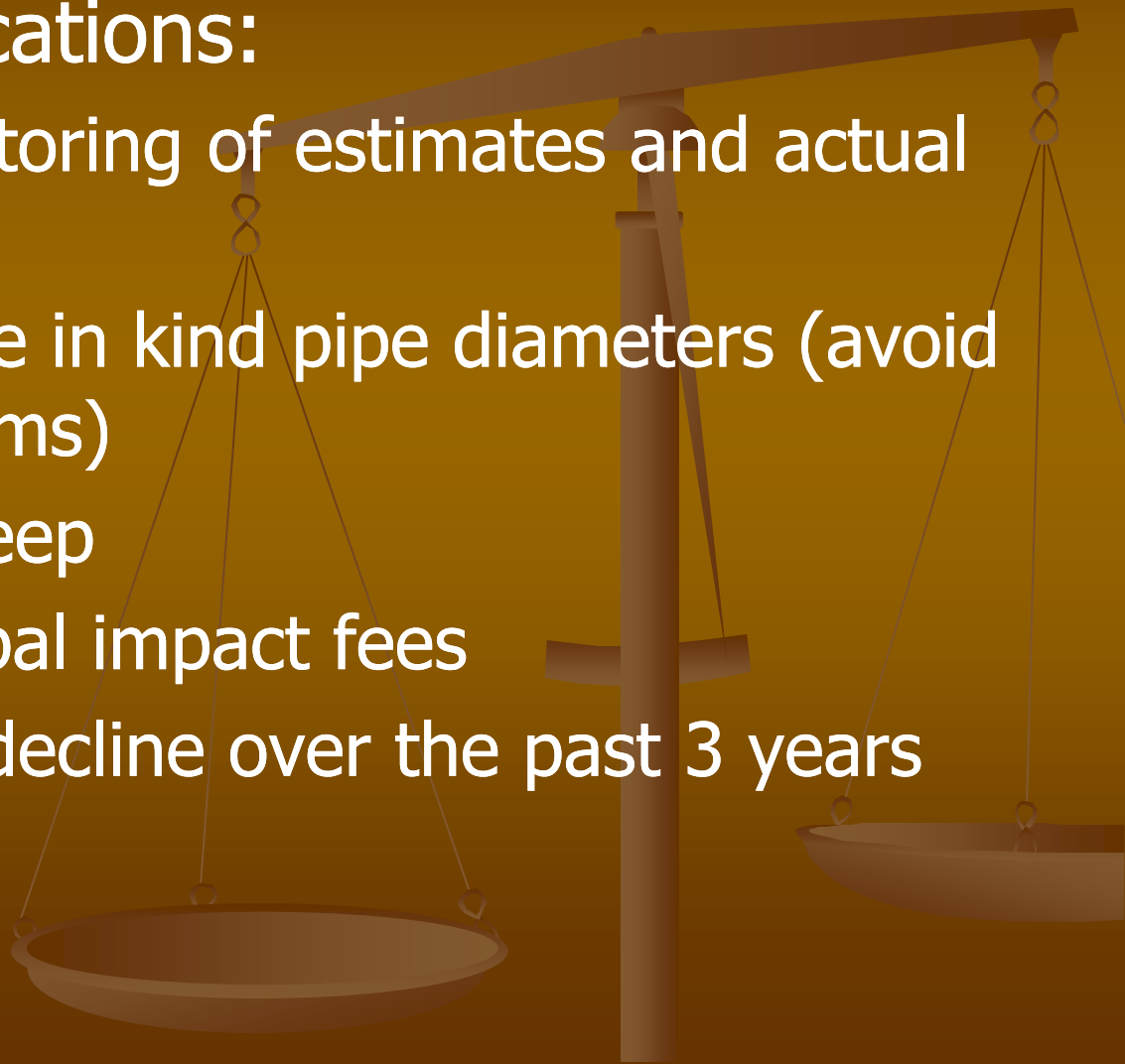


2008-2010 Accelerated Cast Iron Bare Steel Replacement Program

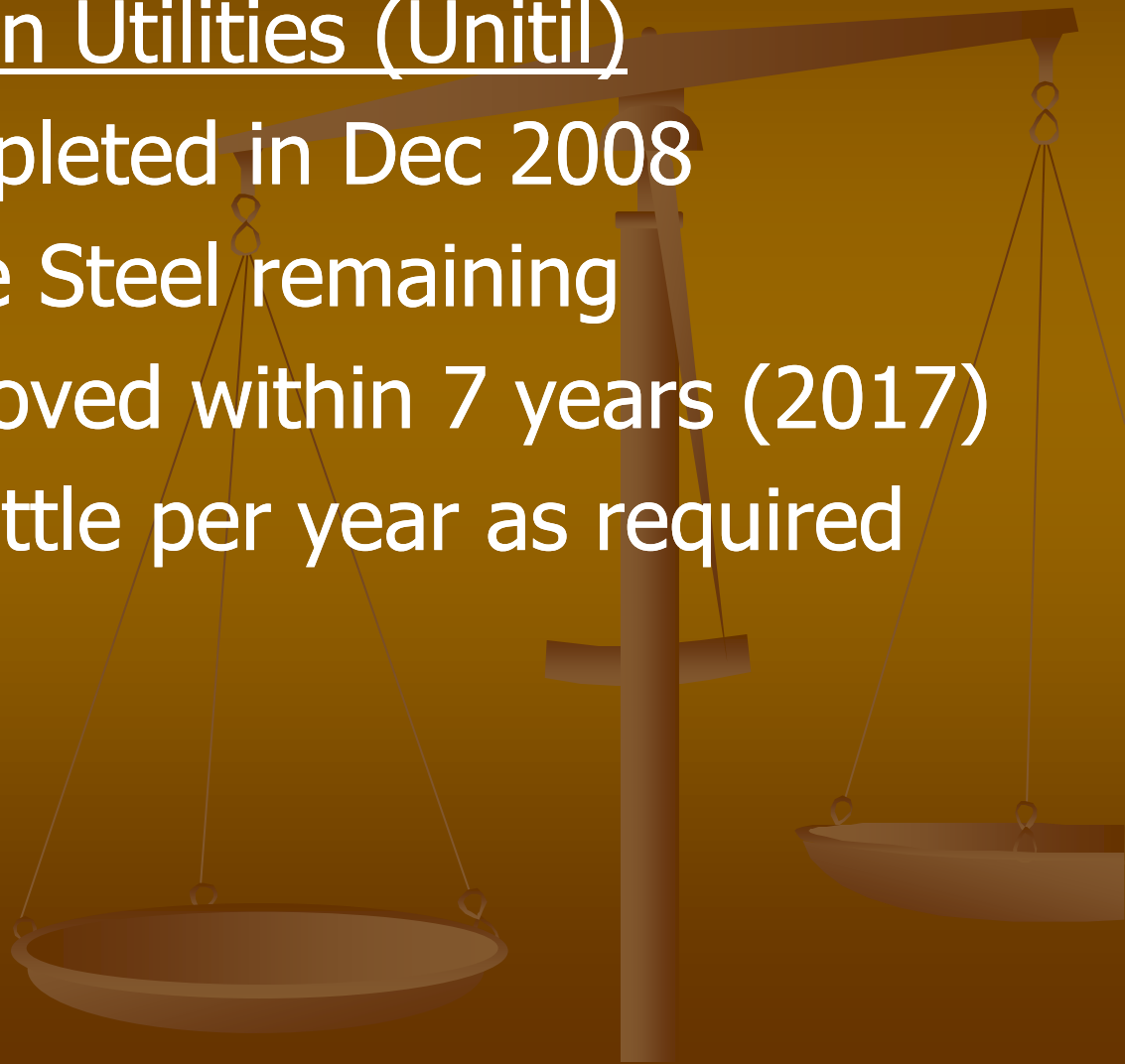
- Program Benefits:
  - Worst Leak Prone Pipes are targeted based on leak/main break history, material, age, field input
  - Approximately 200 Bare Steel Services per year are replaced that normally would not
  - More Meters are moved from inside to outdoors
  - Proactive vs Reactive Mentality

2008-2010 Accelerated Cast Iron Bare Steel Replacement Program

- Program Modifications:
  - Increased monitoring of estimates and actual costs
  - Only replace like in kind pipe diameters (avoid rebuild of systems)
  - Contain cost creep
  - Monitor municipal impact fees
  - Trend leakage decline over the past 3 years



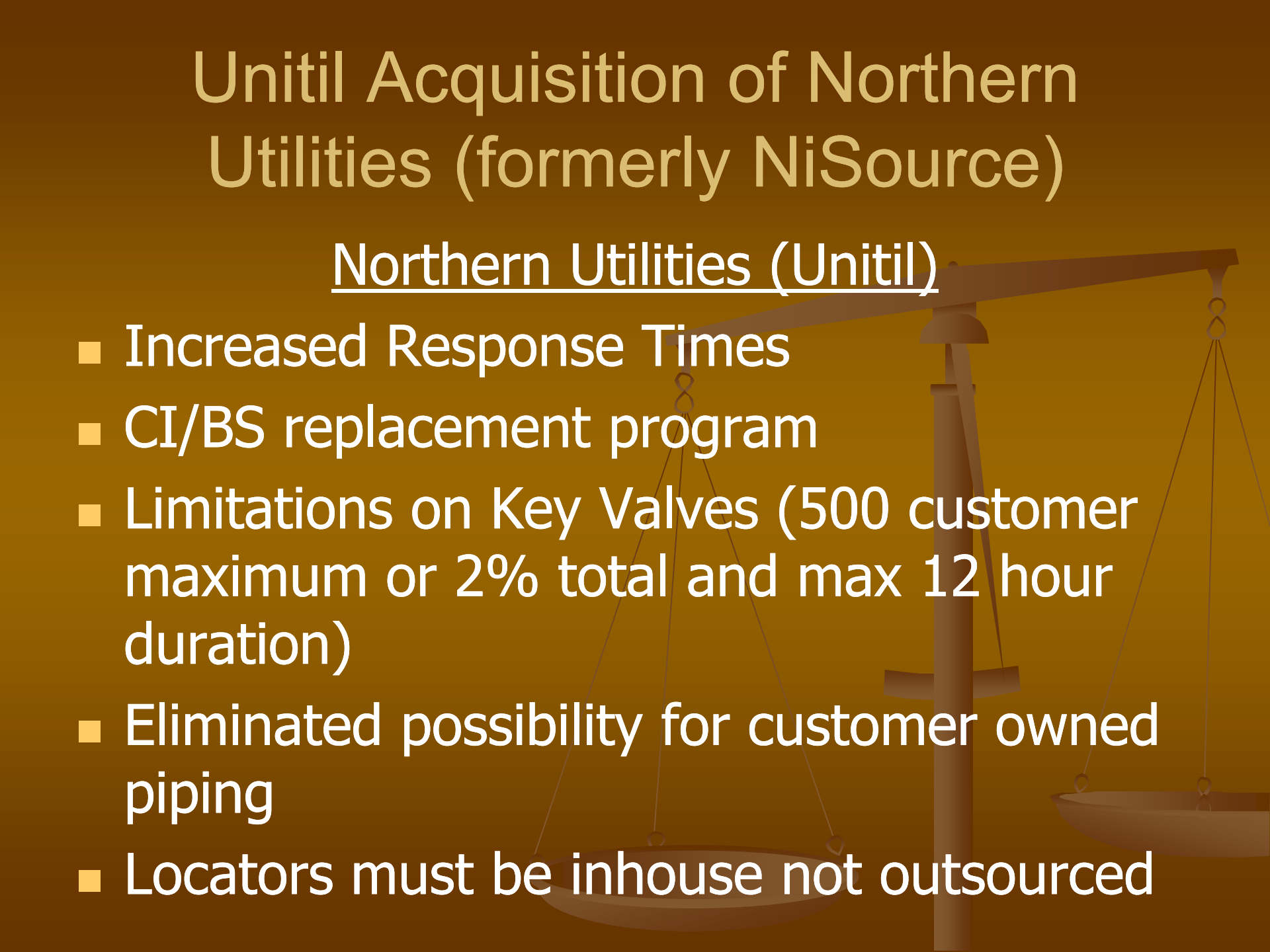
2008-2010 Accelerated Cast Iron Bare Steel Replacement Program



Northern Utilities (Unitil)

- Acquisition completed in Dec 2008
- 32 miles of Bare Steel remaining
- Must all be removed within 7 years (2017)
- As much or as little per year as required

Unitil Acquisition of Northern Utilities (formerly NiSource)



Northern Utilities (Unitil)

- Increased Response Times
- CI/BS replacement program
- Limitations on Key Valves (500 customer maximum or 2% total and max 12 hour duration)
- Eliminated possibility for customer owned piping
- Locators must be inhouse not outsourced